

Disseminated cryptococcal infection has a >80% mortality when associated with respiratory failure.<sup>1</sup> Cutaneous lesions occur in 5–10% of cases.<sup>2</sup> These include subcutaneous nodules, ulcers, and cellulitis. These may mimic pyoderma gangrenosum, Kaposi's sarcoma, and *Molluscum contagiosum*. Clinically, cryptococcal disease may be distinguished from *Molluscum contagiosum* by a more acute onset of numerous papules, which often have a tiny central haemorrhagic crust.<sup>3</sup>

Our patient was unwell and had skin lesions that were too extensive for simple *Molluscum contagiosum*. While *Pneumocystis carinii* remains the commonest cause of severe respiratory disease in HIV infected individuals not on chemoprophylaxis, pleural effusions are rare in this condition. CMV would be unlikely to produce such acute systemic illness by itself. Hence, cryptococcal disease was a reasonable working diagnosis that required urgent treatment.<sup>4</sup> A recent report has highlighted diagnostic delay as a major factor contributing to its high associated mortality.<sup>1</sup> The CRAG test provides a rapid method of confirming the diagnosis of cryptococcosis.<sup>5</sup> It will be positive in blood in infected individuals in up to 95% of cases. The result can then be verified on culture of suitable body fluids.

We recommend early consideration of disseminated cryptococcosis in HIV positive patients with respiratory features suggestive of pneumonia or pleural effusion and atypical skin lesions. The use of rapid diagnostic tests may help to improve the poor outcome in this patient population.

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- 1 Visnegarwala F, Graviss EA, Lacke CE, *et al.* Acute respiratory failure associated with cryptococcosis in patients with AIDS. *Clin Infect Dis* 1998;27:1231–7.
- 2 Chuck SL, Sande MA. Infections with *Cryptococcus neoformans* in the acquired immunodeficiency syndrome. *N Engl J Med* 1989;321:794–9.
- 3 Sandler B, Potter TS, Hashimoto K. Cutaneous *Pneumocystis carinii* and *Cryptococcus neoformans* in AIDS. *Br J Dermatol* 1996;134:159–63.
- 4 Meyohas MC, Roux P, Bollens D, *et al.* Pulmonary cryptococcosis: localised and disseminated infections in 27 patients with AIDS. *Clin Infect Dis* 1995;21:628–33.
- 5 Tanner DC, Weinstein MP, Fedorciw B, *et al.* Comparison of commercial kits for detection of cryptococcal antigen. *J Clin Microbiol* 1994;32:1680–4.

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### Recurrent eczema herpeticum: an underrecognised condition

EDITOR,—We present a case of eczema herpeticum to highlight that herpes simplex can cause generalised infection in atopic individuals and should be considered in the differential diagnosis.

#### CASE REPORT

A 19 year old man presented with 2 day history of extensive painful pustular eruptions of the hands, forearms, and chest. He also felt unwell and had fever. Fingers were stiff and could not be fully extended. He was seen in the local accident and emergency department and prescribed flucloxacillin. On direct questioning he admitted that his illness started with painful penile ulcers followed 2 days later by generalised crops of blisters, which then became infected. Ten days before this he had unprotected sexual intercourse with a casual female friend in Ibiza. He had extensive atopic eczema during childhood, which is well controlled now but has been getting hay fever for the past few years.

Examination revealed symmetrical pustular eruptions on the hands, wrist, forearms, lower legs and chest, and a few vesicular eruptions on the hands typical of herpes. He also had multiple superficial penile ulcers. Axillary and inguinal lymph nodes were enlarged. There was also evidence of generalised eczema.

Herpes simplex was isolated from the penile ulcers. Screening for other STIs and HIV was negative. He was treated with aciclovir 200 mg five times a day for 5 days with very good response. Two months later he presented to us with a similar episode that required treatment with aciclovir. Since then he has been seen on two occasions with recurrence in the past year, but the attacks were more localised to his hands and external genitalia (fig 1).

Eczema herpeticum is classically a disseminated herpes simplex infection of the skin occurring in patients with pre-existing active dermatitis. The severity varies from mild transient disease to a fulminating fatal disorder involving the visceral organs.<sup>1,2</sup> The severity appears to be unrelated to the extent of eczematous lesions. Active dermatitis is not necessary for the development of recurrent eczema herpeticum.

Atopic dermatitis typically begins in early infancy, and individuals with this disease frequently develop other atopic manifestations later in life such as hay fever, allergic rhinitis, and bronchial asthma.<sup>3</sup> Eczema herpeticum has also been associated with seborrhoeic dermatitis, neurodermatitis, Darier's disease, pemphigus, mycosis fungoides, Wiskott-Aldrich disease, congenital ichthyosiform erythroderma,<sup>4,5</sup> and second degree burns.<sup>6</sup>

The presentation in our patient is fairly typical, lesions appearing in crops initially as tiny vesicles passing through pustular and crusted phases associated with systemic symptoms. This condition is often misdiagnosed because the lesions are usually scratched and blistering is lost leaving raw punched out areas often with secondary infection. Diagnosis is based on patient history of atopic disease, presence of vesicular



Figure 1 Herpetic lesions of the hands and penis.

lesion, the striking tendency for the lesions to return to the same areas of the skin, and a positive result of viral culture for herpes simplex.

Eczema herpeticum is now being seen with increasing frequency in adults<sup>3</sup> and herpes simplex infection should be considered in the differential diagnosis of vesicular skin lesions occurring in atopic patients.

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- 1 Margolis TP, Ostler HB. Treatment of ocular disease in eczema herpeticum. *Am J Ophthalmol* 1990;110:274–9.
- 2 Parker RK, Guin JD. Hand eczema herpeticum. *Cutis* 1993;52:227–8.
- 3 Kaplan AP, Buckley RH, Mathews KP. Allergic skin disorders. *JAMA* 1987;258:2900.
- 4 Niimura M, Nishikawa T. Treatment of eczema herpeticum with oral acyclovir. *Am J Med* 1988;85(suppl 2A):49–52.
- 5 Bork K, Brauninger W. Increasing incidence of eczema herpeticum: analysis of seventy five cases. *J Am Acad Dermatol* 1988;19:1024–9.
- 6 Foley FD, Greenwald MKA, Nash MG, *et al.* Herpes virus infection in burned patients. *N Engl J Med* 1970;282:652–6.

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### Pooling urine samples for PCR screening of *C trachomatis* urogenital infection in women

EDITOR,—Selective or universal screening for *Chlamydia trachomatis* infections has been suggested by the World Health Organization as a primary prevention strategy.<sup>1</sup>

The improved sensitivity of the nucleic acid amplification assays for the detection of *C trachomatis* allows the use of urine samples, suitable for screening programmes. However, these commercial assays are expensive, which make them disadvantageous for this purpose.

Therefore, some authors have recently evaluated the accuracy and cost saving of different urine pooling strategies using polymerase chain reaction (PCR) and ligase chain reaction (LCR) tests for the screening for genital *C trachomatis* infections, reporting very encouraging results.<sup>2–5</sup> As the pooling strategies need individual retesting of each component of a positive pool, in order to identify the positive samples the cost saving inherent to these strategies are prevalence and pool size dependent. For this reason, pooling may be particularly suitable when applied to low prevalence populations. On the other hand, a high number of urine samples per pool may yield a decreased sensitivity because of the dilution effect associated with pooling. Peeling *et al* and Kacena *et al* have put forward a mathematical formula to estimate the number of pools that are likely to be positive given a selected pool size and population disease prevalence.<sup>2,3</sup> Thus, it is possible to estimate the reduction on the number of tests required for a pooling strategy compared with individual testing.

The objective of this study was to evaluate a pooling urine samples strategy for screening urogenital chlamydial infection by PCR testing.

In all, 330 processed first catch urine samples (FCU) from women attending general practice clinics in Lisbon (from August 1999 to February 2000) were pooled by five into 66 pools. Pools and individual specimens were simultaneously tested using the Amplicor PCR test, according to the manufacturer's

Table 1 Distribution of positive samples

	"+" Pools (12)	Equivocal pools (4)*	"-" Pools (50)
"+" Samples (17)	13	4	0

\*Confirmed as positive pools.

instructions. Equivocal results analysis ( $>0.2$  OD,  $<0.8$  OD) was resolved by reprocessing original samples and by retesting both pooled and individual specimens by Amplicor PCR assay.

The results are summarised in table 1. The calculated prevalence was 5.2% (17/329). The dilution effect associated with the pooling strategy did not have any effect on either the sensitivity or specificity of the Amplicor PCR test (both 100%) and also solved the problem of PCR inhibitory substances in urine specimens (0% compared with 3.6% of individual testing). One FCU specimen was repeatedly inhibited and was excluded.

The choice for a 5× size pool model was based on the highest potential cost saving for the estimated prevalence of the studied population, according to Peeling *et al.* and Kacena *et al.*<sup>2,3</sup> According to the number of tests required using pooling and individual testing (166 and 346, respectively) the cost saving was 52% compared with the 56% obtained using the mathematical formula. The main reason for this minor difference is that the formula does not take into account the inhibited and equivocal results requiring further sample testing.

Despite the low number of studies concerning urine pooling strategies, the results obtained so far suggest that pooling FCU samples can be useful for epidemiological studies and for screening programmes.

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- 1 WHO-UNAIDS. Sexually transmitted diseases: policies and principles for prevention and care. Geneva: WHO, 1997.
- 2 Peeling RW, Teye B, Jessamine P, *et al.* Pooling urine specimens for PCR testing: a cost saving strategy for Chlamydia trachomatis control programmes. *Sex Transm Inf* 1998;74:66-70.
- 3 Kacena KA, Quinn SB, Howell MR, *et al.* Pooling urine samples for ligase chain reaction screening for genital Chlamydia trachomatis infection in asymptomatic women. *J Clin Microbiol* 1998;36:481-5.
- 4 Krepel J, Patel J, Sproston A, *et al.* The impact on accuracy and cost of ligase chain reaction testing by pooling urine specimens for the diagnosis of Chlamydia trachomatis infections. *Sex Transm Dis* 1999;26:504-7.
- 5 Morre SA, Meijer CJ, Munk C, *et al.* Pooling of urine specimens for detection of asymptomatic Chlamydia trachomatis infections by PCR in a low-prevalence population: cost-saving strategy

for epidemiological studies and screening programs. *J Clin Microbiol* 2000;38:1679-80.

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### Emergence of high level ciprofloxacin resistant *Neisseria gonorrhoeae* strain in Buenos Aires, Argentina

EDITOR,—The surveillance programme of *Neisseria gonorrhoeae* (NG) antimicrobial susceptibility patterns was implemented in 1980 in the National Reference Centre for STI (NRC).

Twenty nine peripheral STI laboratories belonging to the National Network of Argentina, distributed throughout the country, routinely send their isolates to the NRC for typing, susceptibility testing, and plasmid characterisation.

The NRC was incorporated into the WHO Gonococcal Antimicrobial Susceptibility Programme (GASP) for the Americas and the Caribbean in 1993 and since then the methodology has been standardised.

From January 1993 to June 2000, the NRC determined the MICs of 1194 NG strains by the agar dilution method with the media, conditions, and controls as recommended by the NCCLS.<sup>1</sup> Ciprofloxacin range, MIC<sub>90</sub>, and MIC<sub>50</sub> were 0.002–16, 0.004, and 0.016 µg/ml, respectively.

Only one NG strain, detected in 1996, showed a decrease susceptibility to ciprofloxacin. The isolate was submitted by a public hospital from Buenos Aires city. The strain was β lactamase negative by nitrocefin discs and the MICs were penicillin 0.5 µg/ml, tetracycline 4 µg/ml, ciprofloxacin 0.125 µg/ml, spectinomycin 32 µg/ml, ceftriaxone 0.004 µg/ml, and azithromycin 0.25 µg/ml. The auxotype/serogroup class<sup>2</sup> was proline requiring/WII-III.

In May 2000 the first NG strain with high level quinolone resistance (QRNG) was isolated. This strain was isolated in a private medical centre in Buenos Aires city and was submitted to the NRC; no inhibition zone was observed with a 5 µg ciprofloxacin disc.

#### CASE REPORT

The patient was a heterosexual man, aged 34 years, married, not a drug user, and he hadn't travelled abroad during the past year. However, he admitted to having had sexual intercourse with a commercial sex worker, 4 days before the onset of the symptoms. He presented with a purulent acute urethritis with dysuria and was treated with a parenteral dose of ceftriaxone 500 mg and a week's course of doxycycline. The patient became asymptomatic 36 hours after the start of the treatment. Serological tests for VDRL, HIV, and hepatitis B and C were negative.

The strain was β lactamase negative and exhibited high level ciprofloxacin resistance (MIC 16 µg/ml) and low level tetracycline resistance (MIC 4 µg/ml) and was susceptible to the other antibiotics assayed. The MICs were penicillin 1 µg/ml, spectinomycin 32 µg/ml, ceftriaxone 0.008 µg/ml, and azithromycin 0.25 µg/ml. Phenotyping demonstrated a proline requiring auxotype and a WII/III serotype.

Both NG strains mentioned above displayed the same phenotypic characteristics: MICs (except for ciprofloxacin), auxotype, and serogroup.

Pulse field gel electrophoresis (PFGE) was performed with *NheI* and *SpeI*.<sup>3</sup> There was no relation between the PFGE patterns of the

two strains and neither showed genomic similarities to four other ciprofloxacin susceptible NG isolates belonging to the auxotype/serogroup class Pro/WII-III isolated in Buenos Aires at the same time.

The epidemiological and laboratory characterisation of this high level quinolone resistant strain suggest it might have a foreign origin.

According to the literature reviewed no QRNG strain with high level quinolone resistance was reported in Latin-American countries. We report here what we believe to be the first isolation of a strain with high level resistance to ciprofloxacin in Argentina.

Owing to the large scale use of quinolones in our country, where antibiotic use is difficult to control, a substantial increase of QRNG might be expected in the near future. If dissemination occurs, current first line therapy, a single 500 mg dose of ciprofloxacin, should be reviewed.<sup>4</sup>

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- 1 National Committee for Clinical Laboratory Standards 2000. Methods for dilution antimicrobial susceptibility tests for bacteria that grow aerobically. Approved standard. 5th ed. NCCLS document M7-A5;20(2).
- 2 Dillon JR. Laboratory methods for *Neisseria gonorrhoeae*. Ottawa, Ontario, Canada: National Health and Welfare, 1993.
- 3 Tenover FC, Arbeit RD, Goering RV, *et al.* Interpreting chromosomal DNA restriction patterns produced by pulse-field gel electrophoresis: criteria for bacterial strain typing. *J Clin Microbiol* 1995;33:2233-9.
- 4 Center for Disease Control. Fluoroquinolone-resistance in *Neisseria gonorrhoeae*, Hawaii, 1999, and decreased susceptibility to azithromycin in *N. gonorrhoeae*, Missouri, 1999. *MMWR* 2000;49:833-7.

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### Dorsal perforation of prepuce due to locally erosive condylomata acuminata

EDITOR,—We recently reported five patients with sexually/non-sexually transmitted ulcerative diseases complicated by perforation on the dorsal surface of the prepuce.<sup>1</sup> We could find reports of only three similar cases in the indexed literature. During screening of our STD clinic files we found record of another patient with dorsal perforation of the prepuce; however, it was not due to genital ulcer disease, but to condylomata acuminata. This patient, a 22 year old man had unprotected sexual intercourse with a commercial sex worker about 6 months before reporting to our STD clinic in January 1994. About 1 month after sexual contact, he